CLAIM AMENDMENTS

1. (Currently amended) ~~Nucleic acids coded for~~ A nucleic acid which encodes a deregulated 3-phosphoglycerate dehydrogenase containing a gene serA according to SEQ ID No. 1 ~~or an allele, homolog or derivative of this nucleotide sequence or a nucleotide sequence hybridizing therewith~~.

2. (Currently amended) ~~Nucleic acids coding for~~ A nucleic acid which encodes a ~~deregulating~~ deregulated 3-phosphoglycerate dehydrogenase containing a gene *serA* according to SEQ ID No. 2 ~~or an allele, homolog or derivative of this nucleotide sequence or a nucleotide sequence hybridizing therewith~~.

3. (Currently amended) ~~Nucleic acids coding for~~ A nucleic acid which encodes a ~~deregulating~~ deregulated 3-phosphoglycerate dehydrogenase containing a gene *serA* according to SEQ ID No. 3 ~~or an allele, homolog or derivative of this nucleotide sequence or a nucleotide sequence hybridizing therewith~~.

4. (Currently amended) ~~Nucleic acids coding for~~ A nucleic acid which encodes a ~~deregulating~~ deregulated 3-phosphoglycerate dehydrogenase containing a gene *serA* according to SEQ ID No. 4 ~~or an allele, homolog or derivative of this nucleotide sequence or a nucleotide sequence hybridizing therewith~~.

5. (Currently amended) ~~Nucleic acids coding for~~ A nucleic acid which encodes a ~~deregulating~~ deregulated 3-phosphoglycerate dehydrogenase containing a gene *serA* according to SEQ ID No. 5 ~~or an allele, homolog or derivative of this nucleotide sequence or a nucleotide sequence hybridizing therewith~~.

6. (Currently amended) ~~Nucleic acids~~ A nucleic acid according to ~~one of claims 1 to 5 characterized in that they are~~ claim 1, claim 2, claim 3, claim 4 or claim 5 isolated from coryneform bacteria.

7. (Currently amended) ~~Nucleic acids~~ A nucleic acid according to claim 1, claim 2, claim 3, claim 4 or claim 5 ~~one of claims 1 to 6 characterized in that they are~~ isolated from Corynebacterium or Brevibacterium.

8. (Currently amended) ~~Nucleic acids~~ A nucleic acid according to claim 1, claim 2, claim 3, claim 4 or claim 5 ~~one of claims 1 to 7 characterized in that they are~~ isolated *from Corynebacterium glutamicum* or *Brevibacterium flavum*.

9. (Currently amended) A gene structure containing at least one ~~of the nucleotide sequences~~ nucleic acid ~~according to claims 1 to 8~~ claim 1, claim 2, claim 3, claim 4 or claim 5 as well as regulatory sequences operatively linked therewith.

10. (Currently amended) A vector containing ~~at least one nucleotide sequence according to claims 1 to 8 or~~ a gene structure according to claim 9 as well as additional nucleotide sequence for selection, replication in ~~the~~ a host cell or for interaction in ~~the~~ a host cell genome.

11. (Currently amended) A deregulated 3-phosphoglycerate-dehydrogenase or a part thereof loaded by means of a nucleic acid sequence expressing an amino acid sequence selected from the group consisting of SEQ ID NO: 7, SEQ ID NO. 8, SEQ ID NO. 9, SEQ ID NO. 10, and SEQ ID NO. 11 ~~according to one of the claims 1 to 8~~.

12. (Currently amended) A deregulated 3-phosphoglycerate-dehydrogenase according to claim 11 with an amino acid sequence according to SEQ ID No. 7 ~~or a modified form of this polypeptide sequence or isoform thereof~~.

13. (Currently amended) A deregulated 3-phosphoglycerate-dehydrogenase according to claim 11 with an amino acid sequence according to SEQ ID No. 8 ~~or a modified form of this polypeptide sequence or isoform thereof~~.

14. (Currently amended) A deregulated 3-phosphoglycerate-dehydrogenase according to claim 11 with an amino acid sequence according to SEQ ID No. 9 ~~or a modified form of this polypeptide sequence or isoform thereof~~.

15. (Currently amended) A deregulated 3-phosphoglycerate-dehydrogenase according to claim 11 with an amino acid sequence according to SEQ ID No. 10 ~~or a modified form of this polypeptide sequence or isoform thereof~~.

16. (Currently amended) A deregulated 3-phosphoglycerate-dehydrogenase according to ~~claim 12~~ claim 11 with an amino acid sequence according to SEQ ID No. 11 ~~or a modified form of this polypeptide sequence or isoform thereof~~.

17. (Currently amended) A polypeptide according to ~~one of claims 11 to 16 characterized in that it derives~~ claim 11 derived from coryneform bacteria.

18. (Currently amended) A polypeptide according to ~~one of the claims 11 to 17 characterized in that it derives~~ claim 11 derived from Corynebacterium or Brevibacterium.

19. (Currently amended) A polypeptide according to ~~one of the claims 11 to 18 characterized in that it derives~~ claim 11 derived from *Corynebacterium glutamicum* or *Brevibacterium flavum*.

20. (Currently amended) A microorganism containing at least one nucleic acid according to ~~claims 1 to 8~~ claim 1, claim 2, claim 3, claim 4 or claim 5 in replicatable form and which by comparison with the wild type microorganism is expressed in an amplified manner and/or has its copy number increased.

21. (Currently amended) A microorganism according to claim 20 containing in replicable form a gene structure containing the at least one nucleic acid as well as regulatory sequences operatively linked thereto and additional nucleotide sequences for selection, replication, in a host cell or for interaction in a host cell genome ~~according to claim 9 or a vector according to claim 10~~.

22. (Currently amended) A microorganism according to ~~one of the claims 20 to 21~~ claim 20 expressing at least one amino acid sequence selected from the group consisting of SEQ ID NO. 7, SEQ ID NO. 8, SEQ ID NO. 9, SEQ ID NO. 10 and SEQ ID NO. 11 ~~containing at least one polypeptide according to claims 11 to 19~~ which, by comparison to the corresponding wild type line shows an active deregulated 3-phosphoglycerate-dehydrogenase.

23. (Currently amended) The microorganism according to ~~one of the claims 20 to 22 characterized in that it~~ claim 20 that is a Coryneform bacterium.

24. (Currently amended) The microorganism according to ~~one of claims 20 to 23 characterized in that it~~ claim 20 that belongs to the familia Corynebacterium or Brevibacterium.

25. (Currently amended) The microorganism according to ~~one of claims 20 to 24 characterized in that it~~ claim 24 that belongs to *Corynebacterium glutamicum* or *Brevibacterium flavum*.

26. (Currently amended) A probe for identifying and/or isolating genes ~~coded for~~ which encode proteins participating in the biosynthesis of L-serine ~~characterized in that they are made starting from nucleic acids according to one of the claims 1 to 8~~ selected from the group consisting of SEQ ID NO. 13, SEQ ID NO. 14, SEQ ID NO. 15, SEQ ID NO. 16, SEQ ID NO. 17, SEQ ID NO. 18, and SEQ ID NO.19 and containing a marker suitable for detection.

27. (Canceled)

28. (Currently amended) A method for microbially producing L-serine from a carbohydrate, fat or oil, fatty acid, alcohol or organic acid, in a culture medium, containing nitrogen sources and phosphorous sources, which comprises the steps of:

a) providing at least one nucleic acid ~~for a coding deregulating~~ encoding a deregulated 3-phosphoglycerate dehydrogenase, and selected from the group consisting of SEQ ID NO. 1, SEQ ID NO. 2, SEQ ID NO. 3, SEQ ID NO. 4 and SEQ ID NO. 5, isolated from a Coryneform bacterium, and ~~translated~~ transformed into a Coryneform bacterium, and then expressed to form the ~~deregulating~~ deregulated 3-phosphoglycerate dehydrogenase, whereby the gene expression and/or the activity of the corresponding ~~coded~~ encoded ~~deregulating~~ deregulated

3-phosphoglycerate dehydrogenase is increased with respect to the corresponding microorganism which has not been genetically altered;

b) microbially producing L-serine by expressing the at least one nucleic acid ~~coding for a deregulating~~ which encodes a deregulated 3-phosphoglycerate dehydrogenase in said genetically modified microorganism from step a) to microbially convert said carbohydrate, fat or oil, fatty acid, alcohol or organic acid in said culture medium to L-serine; and

c) isolating the correspondingly formed L-serine from the culture medium.

29. (Currently amended) The method for microbially producing L-serine from a carbohydrate, fat or oil, fatty acid, alcohol or organic acid, in a culture medium, defined in claim 28 wherein the nucleic acid ~~coding for a deregulating~~ which encodes a deregulated 3-phosphoglycerate dehydrogenase is SEQ ID NO.1.